

Exam	Regular		
Level	BE	Full Marks	60
Programme	BGE	Pass Marks	24
Year / Part	III/ II	Time	3 Hrs

Subject: Project Engineering and Management (ENGE 352)

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ Attempt **All** questions.
- ✓ The figures in the margin indicate **Full marks**.

1. What is Project life cycle? Describe different types of project management frameworks. [1+3]
2. What is feasibility study in terms of geomatics engineering projects? A remote sensing project is proposed for a large area. Discuss the feasibility aspects that must be evaluated before implementation. [1+7]
3. Define Work Breakdown Structure and Resource Levelling. Draw CPM network diagram and find out EST, EFT, LST, LFT, TF, FF and IF from the information given below. Also compute project duration and the critical path. [2+8]

SN	Activity	Duration	Predecessor	Successor
1	A	5	—	B, C, D
2	B	4	A	E
3	C	2	A	F, H
4	D	3	A	G
5	E	2	B	H
6	F	1	C	I
7	G	3	D	I
8	H	1	C, E	—
9	I	2	F, G	—

4. What is Expression of Interest (EoI) and request for proposal? Write down the steps involved in preparing a detailed cost estimate, technical sanction, budget approval, and procurement conditions. Explain negotiation, contract award, and contract agreement. [2+5+5]
5. Define Quality Control. A mapping project is planned to cover 600 km² in three months, with an estimated cost of Rs. 20,000 per km². At the end of the first month, 180 km² of mapping work was completed with a total expenditure of Rs. 3,900,000. Using Earned Value Analysis (EVA), determine the status of the project in terms of cost and schedule performance. [1+7]
6. Define Project Financing. Distinguish between qualitative and quantitative risk identification approach. [1+7]
7. What is team dynamics? Describe various types of leadership styles in a project. [6]
8. Define Post Project-Evaluation. What deliverables and documents should be finalized during project closure? [1+3]